

**ABSTRACT**

Methods and apparatus for iteratively tracking channel taps in a non-stationary communications channel subject to multipath fading. Training data transmitted through the communications channel are used to determine an initial set of channel taps. A time dependent channel tap model is initialized with the initial set of channel taps. The channel tap weight is programmed into an equalizer that uses the model to estimate unknown data symbols in the received data. The estimated data symbols are used to generate a plurality of adaptively updated sets of channel taps. The plurality of adaptively updated sets of channel taps are fit to a time-dependent channel tap model to update the model parameters. The final channel tap model can then be used by the equalizer to reliably estimate unknown data symbols in the received data.

50065716.doc